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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/092,923

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Hideto Noguchi

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EXAMINER

DANG, HUNG Q

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/092,923

Applicant(s)

NOGUCHI, HIDETO

Examiner

Hung Q. Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03/08/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. (US Patent 6,701,063) and Kikuchi et al. (US Patent 6,553,180).

Claim 1 recites an optical disk recording apparatus, comprising: (1) recording means for recording at least image data on an optical disk medium; and (2) thumbnail generating means for generating, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means, wherein: (3) when a particular operation is conducted, the particular image is read for each of the partial recording sections; (4) said thumbnail generating means generates thumbnail data for the particular image read for said each partial recording section; (5) said recording means recording the thumbnail data of a plurality of images in the form of a string of data.

Komoda et al. teach a video disc recorder/player, comprising: (1) recording means for recording at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44); and (2) thumbnail generating means for generating, for each partial recording section of image data to be recorded on said optical disk medium,

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thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means (column 4, lines 1-3, 30-32, 51-53, 64-66), wherein: (3) when a particular operation is conducted, the particular image is read for each of the partial recording sections (column 6, lines 25-42); (4) said thumbnail generating means generates thumbnail data for the particular image read for said each partial recording section (column 4, lines 1-3, 30-32, 51-53, 64-66); (5) said recording means recording the thumbnail data of a plurality of images (column 4, lines 33-36).

Claim 7 recites an optical disk recording method, comprising the steps of: (1) recording at least image data on an optical disk medium; (2) generating, for each partial recording section of the image data, thumbnail data of a particular image associated with the partial recording section and recording the thumbnail data; (3) reading, when a particular operation is conducted, the particular image for each of the partial recording sections; (4) generating thumbnail data for the particular image read; and (5) recording the thumbnail data of a plurality of images in the form of a string of data.

Komoda et al. also teach an optical disk recording method, comprising the steps of: (1) recording at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44); (2) generating, for each partial recording section of the image data, thumbnail data of a particular image associated with the partial recording section and recording the thumbnail data (column 4, lines 1-3, 30-32, 51-53, 64-66); (3) reading, when a particular operation is conducted, the particular image for each of the partial recording sections (column 4, lines 31-33); (4) generating thumbnail data for the

particular image read (column 4, lines 31-33); and (5) recording the thumbnail data of a plurality of images (column 4, lines 34-37).

Komoda et al. do not teach the thumbnail data of a plurality of images to be recorded as string of data.

Kikuchi et al. teach a digital information recording and playback system and digital information recording medium in which the thumbnail data of a plurality of images are taught to be recorded as string of data (column 30, lines 51-67; column 31, lines 1-2).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the concept of the thumbnail data of a plurality of images being recorded as string of data taught by Kikuchi et al. into the video disc recorder/player and method taught by Komoda et al. because, according to Kikuchi et al., doing such would make searching and displaying the thumbnails have shorter access time or faster (column 30, lines 55-62).

Claims 4 and 10 recite an optical disk recording apparatus capable of recording data on a plurality of types of optical disk media and a recording method; comprising: (1) recording means and step for recording at least image data on an optical disk medium; (2) thumbnail generating means and step for generating, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means; and (3) means and step for determining a type of said optical disk medium and for changing the

processing to generate and to record thumbnail data in association with the recording of the image.

Komoda et al. teach a video disc recorder/player and recording method, comprising: (1) recording means and step for recording at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44); (2) thumbnail generating means and step for generating, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means (column 4, lines 1-3, 30-32, 51-53; 64-66); and (3) means and step for changing the processing to generate and to record thumbnail data in association with the recording of the image corresponding to a high-resolution (column 4, lines 46-53) and standard DVD (column 4, 60-66) formats.

Komoda et al. do not teach the means and step for determining the type of the optical disk medium.

Kikuchi et al. teach the means for determining the type of the optical disk medium (column 33, lines 63-67; column 12, lines 49-54; column 9, lines 47-54; column 13, lines 19-21).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the means for and the step of determining the type of the optical disk medium taught by Kikuchi et al. into the video disc recorder and player taught by Komoda et al. because of display purpose as suggested by Kikuchi et al. (column 40, lines 38-55).

Claims 2 and 5 recite the optical disk medium being of a write-once type; and when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data is recorded.

See the teachings of Komoda et al. and Kikuchi et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13) and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is recorded (column 4, lines 60-66).

Claim 8 recites the optical disk medium being of a write-once type; and when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data is generated and recorded after the string of partial recording sections.

See the teachings of Komoda et al. and Kikuchi et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13) and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is generated and recorded after the partial recording section, which is the input video data (column 4, lines 39-53).

Claims 3, 6, and 9 recite the optical disk medium being of a write-once type; and each time an operation for REC processing is conducted as the particular operation, thumbnail data is generated for the particular operation and is separately kept as a string of thumbnail data; and when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data is recorded.

See the teachings of Komoda et al. and Kikuchi et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13); and each time an operation for REC processing is conducted as the particular operation, thumbnail data is generated for the particular operation and is separately kept as thumbnail data (column 4, lines 60-66); and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is recorded (column 4, lines 60-66).

Claim 11 recites the steps of: (1) generating, when it is determined that said optical disk medium is of a write-once type and when an operation for write processing termination is conducted as the particular operation, thumbnail data for the partial recording section; and (2) recording the thumbnail data generated by the generating step.

See the teachings of Komoda et al. above.

Komoda et al. also teach the steps of: (1) generating, when an operation for write processing termination is conducted as the particular operation, thumbnail data for the partial recording section (column 4, lines 39-53); and (2) recording the thumbnail data generated by the generating step (column 4, lines 51-53).

Komoda et al. do not teach the optical disk medium to be of write-once type.

See the teachings of Kikuchi et al. regarding to the optical disk medium to be of write-once type above.

Claim 12 recites the steps of: (1) generating, when an operation for REC processing is conducted as the particular operation, thumbnail data for the particular



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operation and separately keeping the thumbnail data as a string of thumbnail data; and (2) recording, when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data after the partial recording sections, the recording being conducted as an update operation.

See the teachings of Komoda et al. above.

Komoda et al. also teach the steps of: (1) generating, when an operation for REC processing is conducted as the particular operation, thumbnail data for the particular operation and separately keeping the thumbnail data (column 4, lines 60-66); and (2) recording, when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data after the partial recording sections, the recording being conducted as an update operation (column 4, lines 60-66).

Komoda et al. do not teach the step of determining the optical disk medium being of write-once type and the concept of string of data.

See the teachings of Kikuchi et al. including the step of determining the optical disk medium being of a write-once type and the concept of string of data, above.

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent of unexpected results to the contrary.

#### *CONCLUSION*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is 571-270-1116. The examiner can normally be reached on M-Th:7:30-5:00; every other Friday: 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Hung Dang in cursive script, with the initials "HD" written below it.

Hung Dang  
Patent Examiner

Handwritten signature of James W. Myhre in cursive script, with the name "JAMES W. MYHRE" printed below it.

JAMES W. MYHRE  
SUPERVISORY PATENT EXAMINER